A faint, light-gray line-art illustration of a bicycle frame and drivetrain is visible in the background, showing the front fork, handlebars, seat tube, down tube, bottom bracket, and rear triangle.

# ***DARCO***

**TECH PACK**

**CONFIDENTIAL**  
FOR YOUR EYES ONLY, PLEASE DO NOT SHARE

REGISTER YOUR FRAME AT:  
**CHROMAGBIKES.COM/FRAMES**



· DARCO ·



DARK GREY ■



Welcome to The Darco, the first (adult) full squisher from Chromag! Believe us when we say, this is as exciting for us as it must be for you.

We've been making bikes for a while now, and all of this knowledge and expertise has trickled down into creating The Darco.

As you might have expected, this bike draws strongly on our steel hardtail roots. Aside from the obvious (the steel front triangle) let's dive into what makes this bike tick.

The Darco rolls on 29" wheels and has 150mm of travel up front paired with a stout 120mm in the rear, a hardtailers full-suser if you will. Our geometry philosophy has carried right over onto this bike, pairing slack head tube angles (64°) and steep seat tube angles (78°), with ample room up front (490mm reach on M/L). Perfect for the type of terrain we have in the Sea to Sky, steep climbs and steeper descents!

Similar bikes with this amount of rear travel are more commonly spec'd with an inline shock, however given what we know is achievable on a hardtail, it seemed more appropriate to spec this bike with a reservoir shock. A shock intended for more aggressive riding and much less likely to be overwhelmed when in the thick of it.

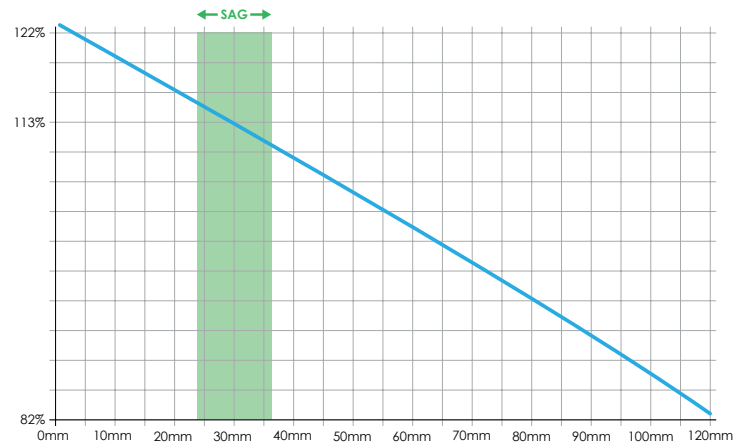
We've pored over the kinematics of this bike, balancing the trade-offs into what we believe is a truly great mountain bike. Our overall design principles were to create a very consistent kinematic (no notable or fast changes in the leverage ratio that would make the bike unpredictable), have reasonable progression (the bike ramps up due to consistent change in leverage ratio), and have a supportive pedaling platform (an anti-squat of approximately 110% at expected sag height).

This bike has been a labour of love for us, and a project with such scope deserves a name near and dear to our hearts. Our dear friend and Chromag mechanic D'Arcy Burke passed away after a courageous battle with cancer in 2020. We affectionately referred to him as "The Dark One", The Darco is a tip of the hat to our friend.

We're very excited to share this new chapter of Chromag with you, we hope you enjoy riding it as much as we have testing it.

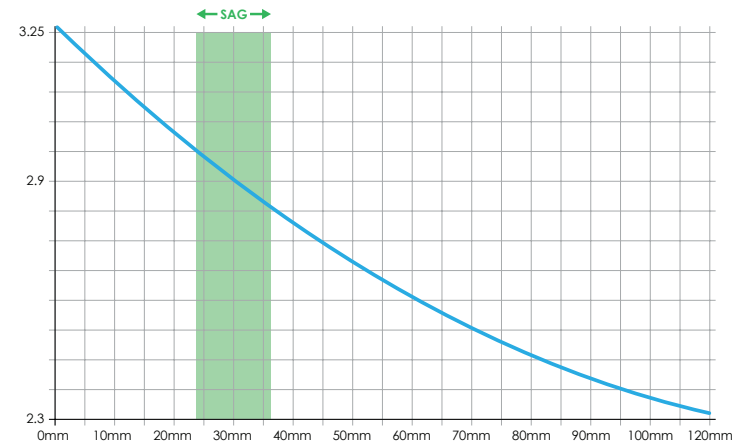
Happy shredding!

- The Chromag Crew



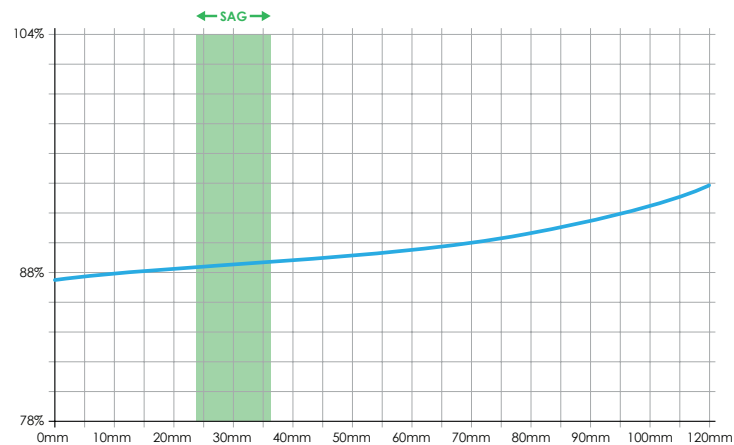
## ANTI-SQUAT

Anti-squat is approximately 110% at sag height. This will give a supportive platform but still allow some suspension activity aiding traction. The amount of anti-squat is fairly consistent over the full travel, as such it will pedal in a similar way throughout the travel.



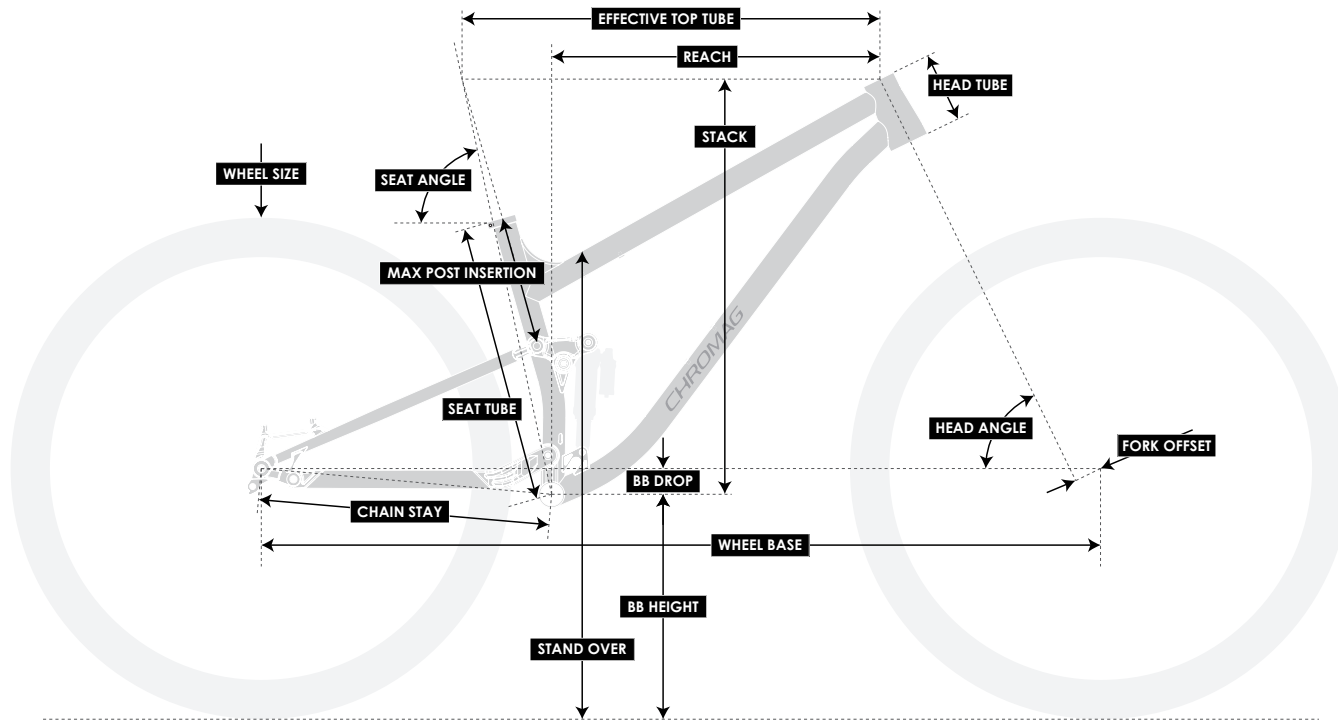
## LEVERAGE RATIO

We designed the leverage curve to be both consistent, and progressive which equates to a predictable ride both in terms of travel used and suspension damping. There is 29% progression over the full travel of the Darco which strikes a great balance of usable suspension travel, small bump compliance, mid support and bottom out resistance.



## ANTI-RISE

The anti-rise is consistent throughout the travel, with only a 6% variation across the travel range. This means that the bike will behave as consistently as possible on the brakes regardless of the size and speed of the impact. The percentage value will mean the bike is on the more active side of supported.

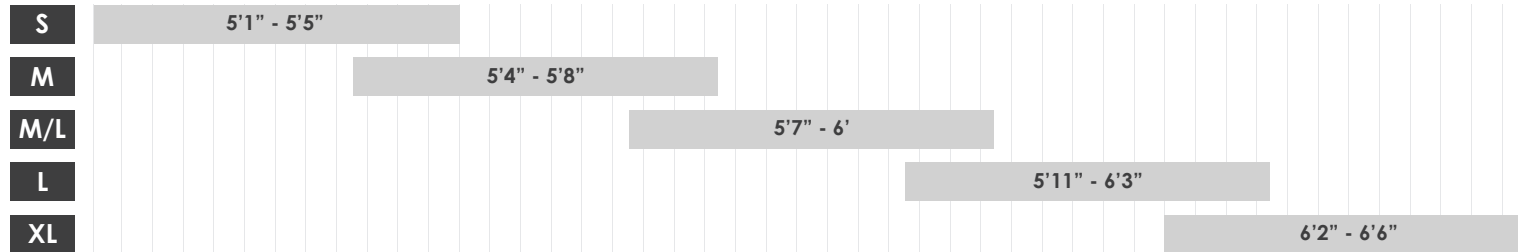


# GEOMETRY

Size	S		M		M/L		L		XL	
Units	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
Typical Rider Height	5'1" - 5'5"	155 - 165cm	5'4" - 5'8"	163 - 174cm	5'7" - 6'	172 - 183cm	5'11" - 6'3"	181 - 192cm	6'2" - 6'6"	190 - 200cm
Effective Top Tube	22.9	581	23.7	603	24.5	622	25.5	648	26.2	666
Seat Tube	13.8	350	15.0	380	16.1	410	17.3	440	18.5	470
Reach	17.72	450	18.6	472	19.3	490	20.2	514	20.9	530
Stack	24.29	617	24.3	617	24.5	622	24.8	631	25.2	640
Standover	26.7	677	27.8	707	29.0	736	30.1	765	31.3	795
Wheelbase	47.80	1214	48.7	1236	49.4	1256	50.6	1284	51.4	1305
BB Height	13.19	335	13.2	335	13.2	335	13.2	335	13.2	335
Front Center	30.71	780	31.6	802	32.4	822	33.5	850	34.3	871
Chainstay	17.13	435	17.1	435	17.1	435	17.1	435	17.1	435
Head Tube	3.74	95	3.7	95	4.1	105	4.5	115	4.9	125
Max. Seatpost Insertion	7.6	193	8.8	223	9.9	253	11.1	283	12.3	313
Head Tube Angle						64°				
Effective Seat Tube Angle						78°				



## SIZING



## SPECS

Frame Construction	4130 Cr-Mo Steel // 7005-T7 Aluminum
Rear Travel	120mm
Wheel Size	29"
Rear Axle	180mm, M12 X 1.00mm (Boost 148)
BB Type	BSA 73mm Threaded
Headset	44-56mm
Linkage	Rocker Driven Horst Linkage
Shock Size	165 x 45mm Trunnion
Lower Shock Hardware	20 x 8mm
Hanger	SRAM™ UDH™
Recommended Fork Offset	42mm
Seatpost Size	31.6mm
Seatclamp Size	35mm
Bottle Cage Mount	Yup!
Gear Mount	Yup!
Brake Mount	180mm Post
Origin	Taiwan





· DARCO ·





## BUILD

<b>Fork</b>	Rock Shox™ Lyrik Select+ 150mm, 15x110mm, 42mm
<b>Shock</b>	Rock Shox™ Super Deluxe Ultimate 165x45, 2 Tokens, HM Tune
<b>Stem</b>	Chromag HiFi 40mm
<b>Bar</b>	Chromag OSX
<b>Headset</b>	Cane Creek 40
<b>Crankset</b>	SRAM™ GX Eagle 170mm, 30t
<b>Brakes</b>	SRAM™ G2 RSC
<b>Rotors</b>	Centerline 180mm
<b>Shifter</b>	SRAM™ GX Eagle 12 Speed
<b>Cassette</b>	SRAM™ GX Eagle 12 Speed
<b>Chain</b>	SRAM™ GX Eagle 12 Speed
<b>Derailleur</b>	SRAM™ GX Eagle 12 Speed
<b>BB</b>	DUB 73mm Threaded
<b>Wheels</b>	Chromag Phase30 / R4
<b>Tires</b>	Maxxis DHF/DHR
<b>Seatpost</b>	Rock Shox™ Reverb, 125 - 200mm
<b>Saddle</b>	Chromag Trailmaster DT
<b>Grips</b>	Chromag Format
<b>Pedals</b>	-







Suspension sag is the percentage of full travel that the suspension compresses when the rider, including gear, is on the bicycle in a **normal riding position**. Setting the correct sag allows the suspension to perform effectively. **More sag (less pressure)** increases bump sensitivity and suspension movement. More bump sensitivity results in a smoother ride and is typically preferred on longer travel bicycles. **Less sag (more pressure)** decreases bump sensitivity and suspension movement. Less bump sensitivity results in a more firm, efficient ride and is typically preferred on shorter travel bicycles.

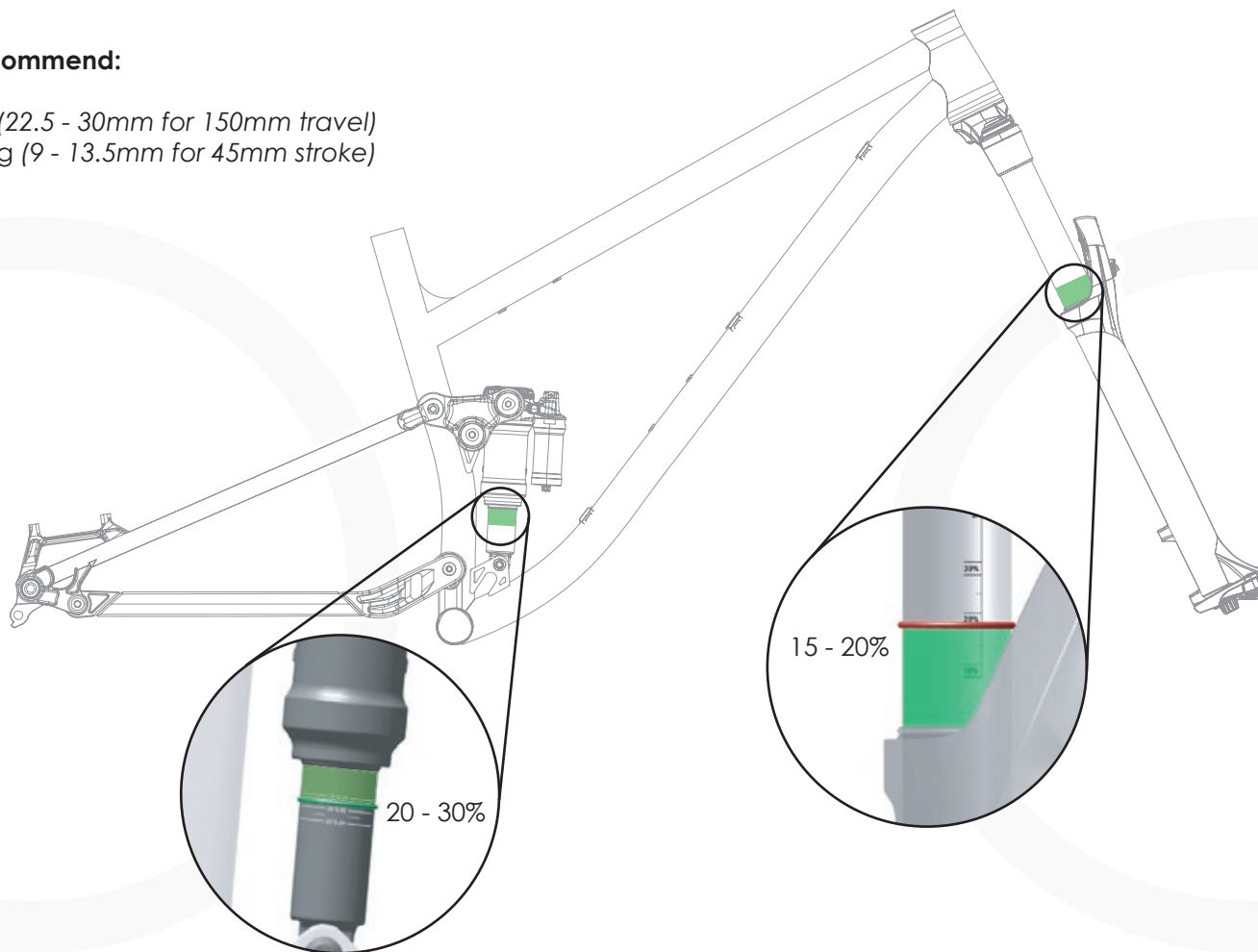
On RockShox suspension, the sag indication is marked on the stanchion making it very easy to check. If your suspension is from another manufacturer then you will need to measure the sag against the full stroke to calculate the percentage of sag.

Before setting sag, set the dampers (rebound and compression) to the full open positions. Rotate the adjusters counter-clockwise until they stop. After changing pressure, bounce on the bike at least 5 times to make sure the positive and negative chambers are equalized. Stand in your neutral riding position and have your butler read the amount of sag. Repeat and adjust as needed to achieve desired sag.

For more information visit [trailhead.rockshox.com](http://trailhead.rockshox.com) or your suspension manufacturer's website. It should go without saying that suspension setup is an iterative and delicate process. If you are having trouble, or if any of the above seems like a foreign language, please visit your local bike shop for help with setup!

#### For your Darco, we recommend:

- **Fork:** 15 - 20% of sag (22.5 - 30mm for 150mm travel)
- **Shock:** 20 - 30% of sag (9 - 13.5mm for 45mm stroke)





Approximate starting pressures are printed on your RockShox fork lower legs, and also on some other manufacturer's forks.

Because different bikes use different leverage ratios, the shock manufacturer cannot provide this information. Please use the table below to find an **approximate** starting pressure for your weight. You should still go through the sag setup described above as many times as needed.

This is a rough guide, it cannot be stated enough that suspension setup is one of the most personal touches you can make while setting up your bike. Use this guide to find a rough starting point, ride your bike and adjust. You may repeat this process for many rides until you find a setup you like. You may even have multiple setups for different types of ride (bike park vs. singletrack epic for example).

Chromag Darco / Rock Shox™ Super Deluxe Ultimate 165x45, 2 Tokens, HM Tune				
Rider Weight (Lbs)	Approx. Rear Shock Air Pressure (PSI)	Sag	LSR*	LSC
80 - 100	105 - 130	25%	7 - 6	Start open / Adjust to suit
100 - 120	130 - 155	25%	6 - 5	Start open / Adjust to suit
120 - 140	155 - 180	25%	6 - 5	Start open / Adjust to suit
140 - 160	180 - 205	25%	5 - 4	Start open / Adjust to suit
160 - 180	205 - 230	25%	4 - 3	Start open / Adjust to suit
180 - 200	230 - 255	25%	4 - 3	Start open / Adjust to suit
200 - 220	255 - 280	25%	3 - 2	Start open / Adjust to suit
220 - 240	280 - 305	25%	2 - 1	Start open / Adjust to suit

We're not going to go into volume spacers in too much detail, but in short, if sag is set correctly and your suspension bottoms out quickly and often, you can try adding more volume spacers. Here's what comes installed, and how many you can use:

	Tokens Installed	Max. No. of Tokens
Rock Shox™ Lyrik Select+ 29" 150mm	0	5
Rock Shox™ Super Deluxe Ultimate 165x45mm	2	3

When you find settings you like, **make a note of them**. This is important, as even when a bike shop reads your air pressure before performing a service, some pressure is lost when a shock pump is connected.

Setup Description	My Settings					
	Fork Pressure	Fork LSR*	Fork LSC*	Shock Pressure	Shock LSR*	Shock LSC*
Eg. Bike Park						

\*Count clicks from closed. 0 clicks = closed.



Whether you get your bike in a box, or roll it out the front door here at Chromag HQ, you can rest assured your bike has been pored over with pride, and built with the utmost attention to detail by one of our extremely talented mechanics. Threads are chased, seat tubes are reamed, head tubes are honed, fits are checked and checked again, all to make sure when you get your bike, everything is absolutely dialed.

If we shipped your bicycle, the only difference is that once built, we disassembled some of the parts to fit it in the box. In terms of assembly, here's what's been done, and what needs to be done if you're getting your Chromag shipped.

#### What has been done:

- ✓ Chain length adjusted.
- ✓ Gears adjusted.
- ✓ Brakes set up and bled.
- ✓ Handlebar tightened to 6Nm.
- ✓ Grips tight on handlebar.
- ✓ Crankset tight, bottom bracket tight/adjusted.
- ✓ Saddle and seatpost tight.
- ✓ Seatpost greased **\*make sure to re-grease every 6 months!**
- ✓ Tire sealant installed.
- ✓ Cassette tight.

#### What needs to be done:

- Inflate tires to desired pressure.
- Install brake rotors, tightening bolts to 6.2Nm.
- Attach derailleur to frame, tightening to 9Nm making sure that the B-tension tab rests properly against the derailleur hanger stop.
- Grease headset bearings, install fork and handlebar, positioning the headset spacers above or below the stem according to rider fit.
- Align handlebar stem, preload headset and tighten stem pinch bolts to 8Nm.
- Install wheels, tighten axles.
- Install chain with quick link.
- Grease pedal threads and install pedals using pedal washers supplied.
- Adjust brakes, shifters, saddle position and height for personal preference.
- Set up suspension.
- Bed-in brakes. (Roll down a gentle gradient dragging one brake at a time. Avoid locking them up.)
- Go ride!

#### Notes:

*We recommend using an experienced and qualified mechanic to build your bike.*

*Things bed-in over time, be sure to perform a bolt check after your first ride. (It's good practice to perform a bolt check before every ride.)*



**Can I run the Darco as a mullet?**

It would be possible (as it technically is with all 29" bikes) however it would drastically change the geometry and behaviour of the bike. The bottom bracket would be low enough to be annoying for pedal strikes, and the head angle and seat tube angle would be slacker. This would make the bike less nimble and more of a plow, which is quite far removed from how we designed it.

**Can I run a coil shock?**

In general, expect that most coil shocks will not fit the Darco. The kinematic was designed around an air shock, and a coil shock does not suit this bike's attitude very well given the small amount of rear travel.

**Can I 'long shock' it?**

This means fitting a shock that has a longer eye to eye or stroke to get more travel out of a frame. This is not possible on the Darco – there would be clearance issues in several areas at bottom-out. It would also adversely affect the kinematics and geo.

**What's the tire clearance?**

The Darco will fit most tires up to 2.5" wide. Note that most tires do not measure exactly as stated by the manufacturer, and tires from one manufacturer vary greatly to the next.

**Can I fit a chain guide and/or bash guard?**

There are no ISCG mounts on the Darco. The bike was designed without a chain guide option, to leave more room for the main pivot and thus more bearing stability.

**Why a collet axle?**

A collet axle means there is no pull up to remove any free space in the main pivot bolted joint. This eliminates binding as it goes through its travel, improving suspension performance.

**How do I change bearings?**

All bearings are surrounded, where possible, by large flat surfaces making removal and refitting far easier. There is access to the outer race of all bearings so if a bearing inner race comes out leaving the outer behind it is still possible to remove the outer with simple tools. See exploded diagrams for more info. If you're not comfortable removing/installing your own bearings, we strongly recommend bringing your bike to a local bike shop. It's possible to damage your bike beyond repair if you improperly remove/install your bearings. Such damage would not be covered under our warranty policy.

**Long-forking?**

The Darco can accommodate a change in fork travel of up to +/- 10mm. Using a 160mm fork will slacken the headtube and seattube angles by about 0.5° and raise the BB. A 140mm fork will do the opposite. Keeping it simple, a longer fork will make the bike more stable at speed, and a shorter one will make it more responsive. That being said, we designed the bike around a 150mm fork as we think it is well-suited to the character of the bike, striking a good balance of agility and stability.

**What is the chain line?**

The Darco uses a boost rear end (148mm). As such, the chain line should reflect this, typically 51-54mm or a 3mm offset on the chain ring if running SRAM.

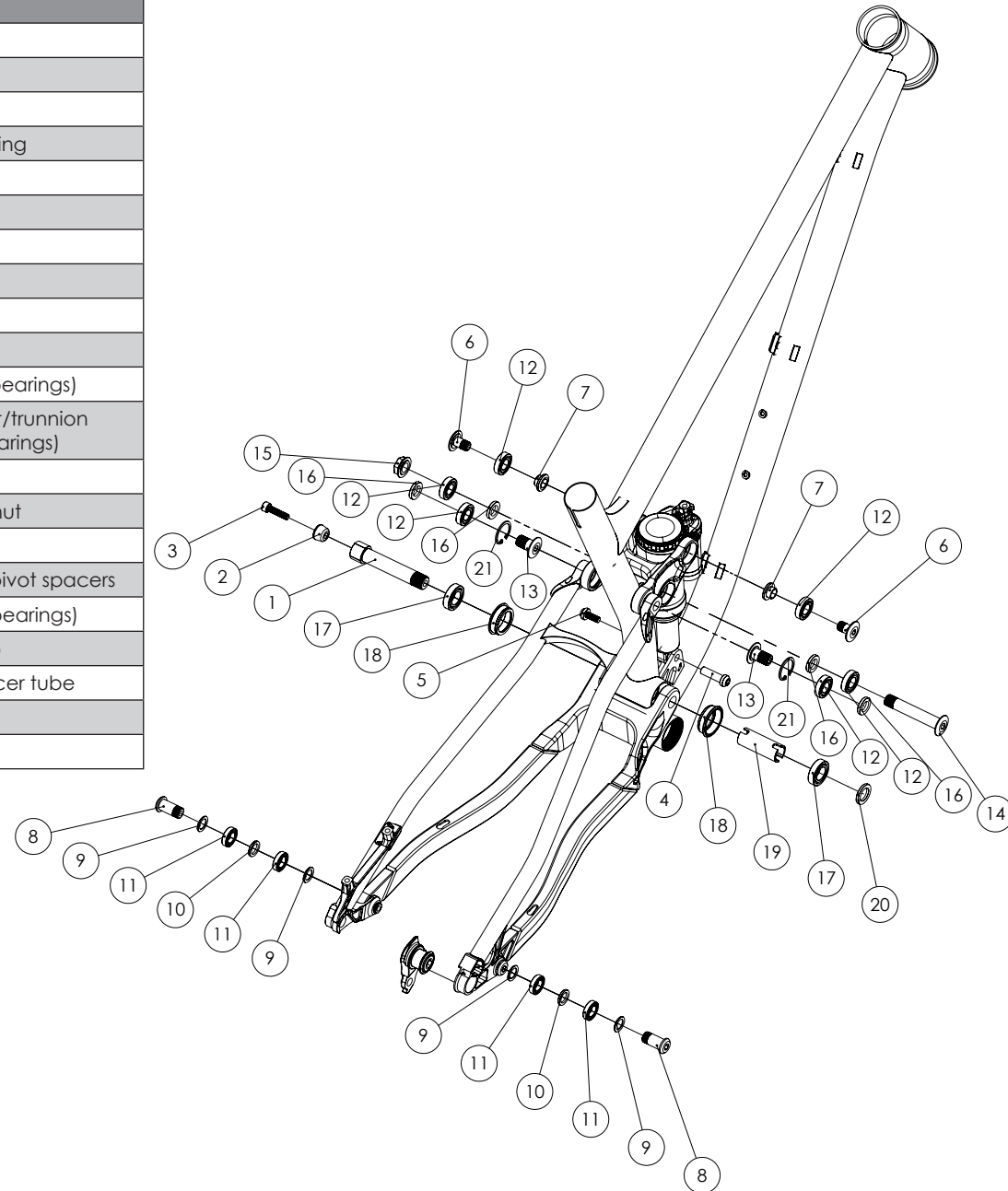
**Max chain ring size?**

With a 52mm chainline (SRAM boost standard), the Darco can fit up to a 34-tooth chainring.



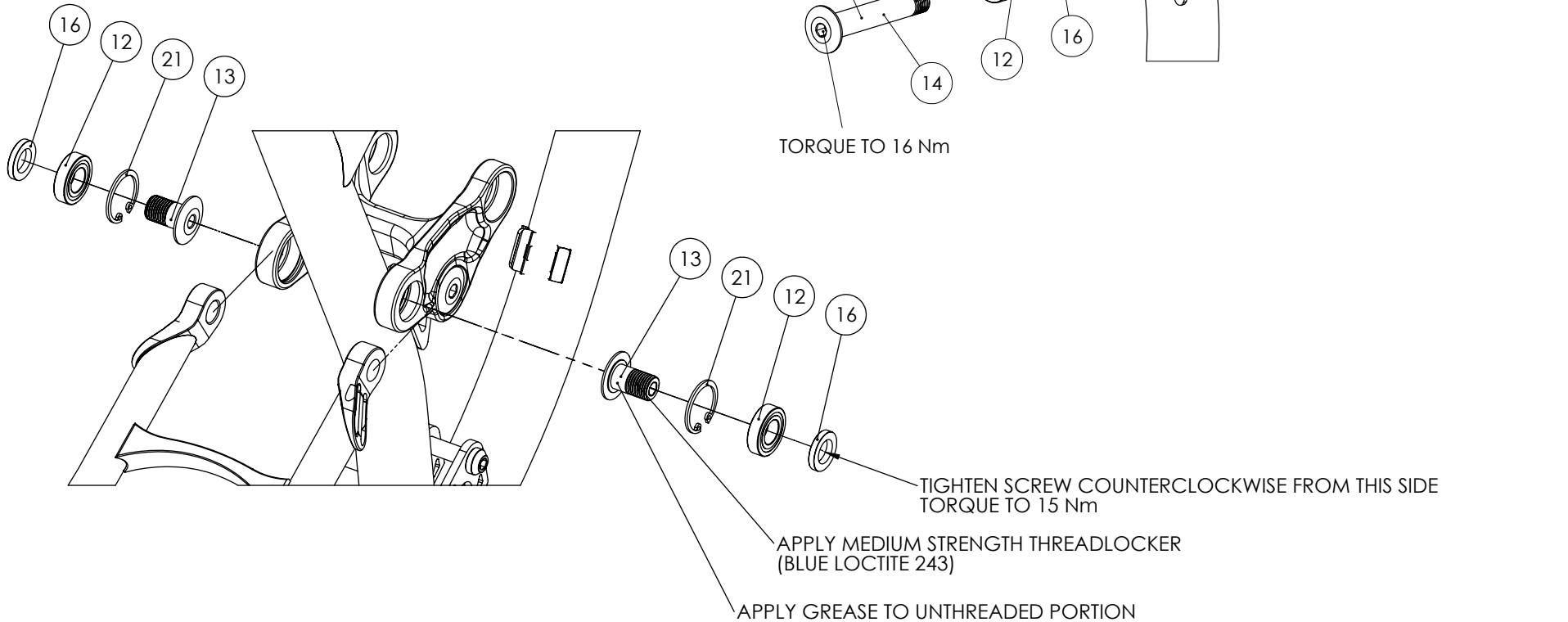
## DARCO 120 EXPLODED VIEW

Ref.	Description	Qty. In Frame	Included In Kit
1	MAIN PIVOT COLLET AXLE	1	Main pivot collet axle
2	WEDGE FOR COLLET AXLE	1	
3	SOCKETHEAD CAP SCREW FOR COLLET AXLE	1	
4	LOWER SHOCK SECURING PIN SS	1	Lower shock pin and fixing
5	LOWER SHOCK SECURING SCREW SS	1	
6	TRUNNION BOLT	2	Trunnion bolts
7	SS TRUNNION SPACER	2	Trunnion spacers
8	HORST LINK SCREW	2	Horst pivot bolts
9	1MM HORST SPACER (RING SHIM)	4	Horst pivot spacers
10	ALLOY 2MM HORST SPACER	2	
11	6801 MAX BEARING	4	6801 MAX (Horst pivot bearings)
12	6901 MAX BEARING	6	6901 MAX (Rocker pivot/trunnion pivot/seatstay pivot bearings)
13	REAR LINK PIVOT BOLT	2	Seatstay pivot bolts
14	ROCKER PIVOT AXLE	1	Rocker pivot axle and nut
15	ROCKER MAIN AXLE NUT	1	
16	ALLOY 3MM SPACER	4	Rocker pivot/seatstay pivot spacers
17	6902 MAX BEARING	2	6902 MAX (Main pivot bearings)
18	MAIN PIVOT BEARING CUP FOR 6902 BEARING	2	Main pivot bearing cup
19	MAIN PIVOT BEARING TUBE FOR 6902 BEARING	1	Main pivot internal spacer tube
20	MAIN PIVOT 2.5MM SPACER FOR 6902 BEARING	1	Main pivot spacer
21	C CLIP FOR 6901 BEARING	2	Seatstay pivot bolts

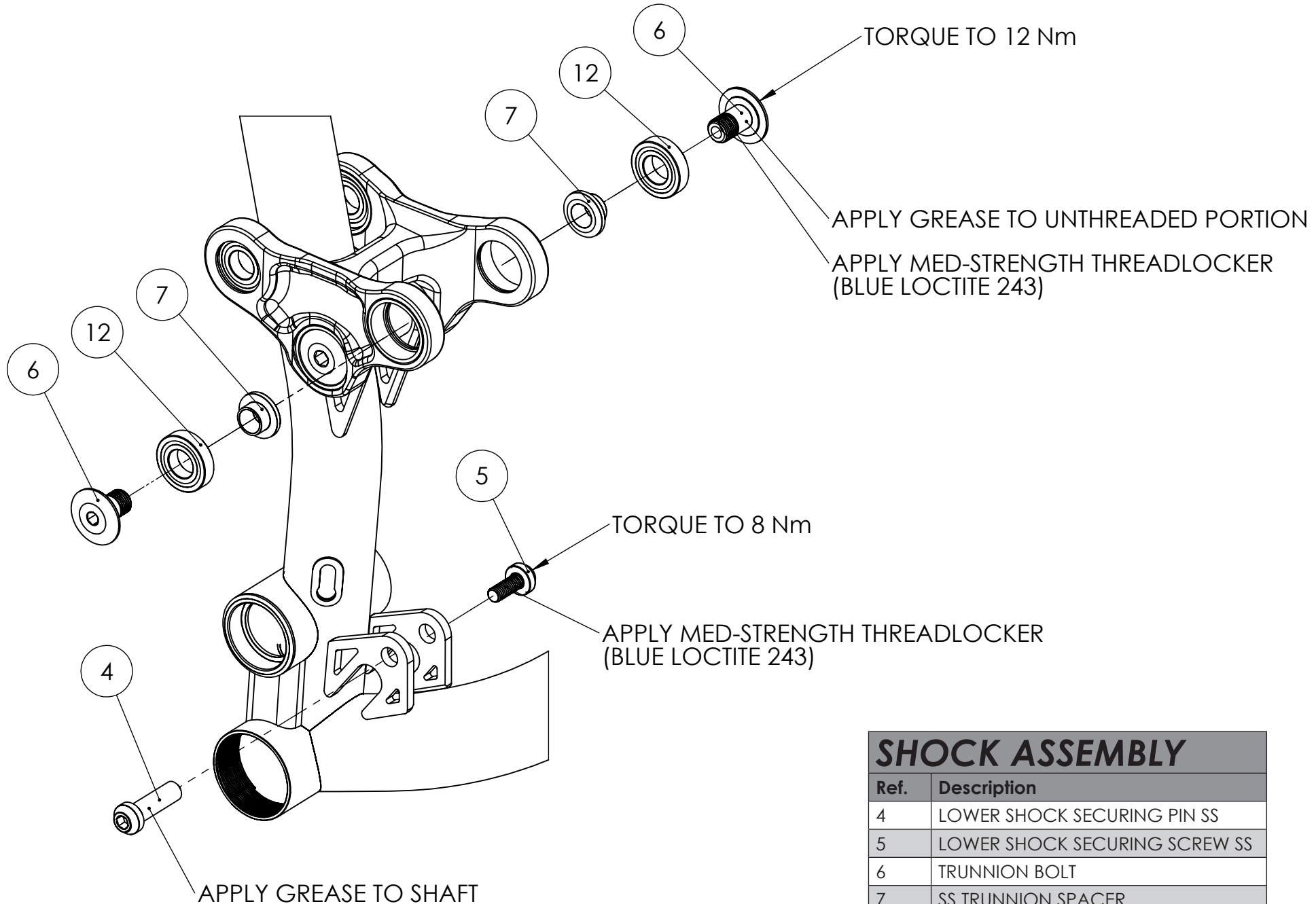




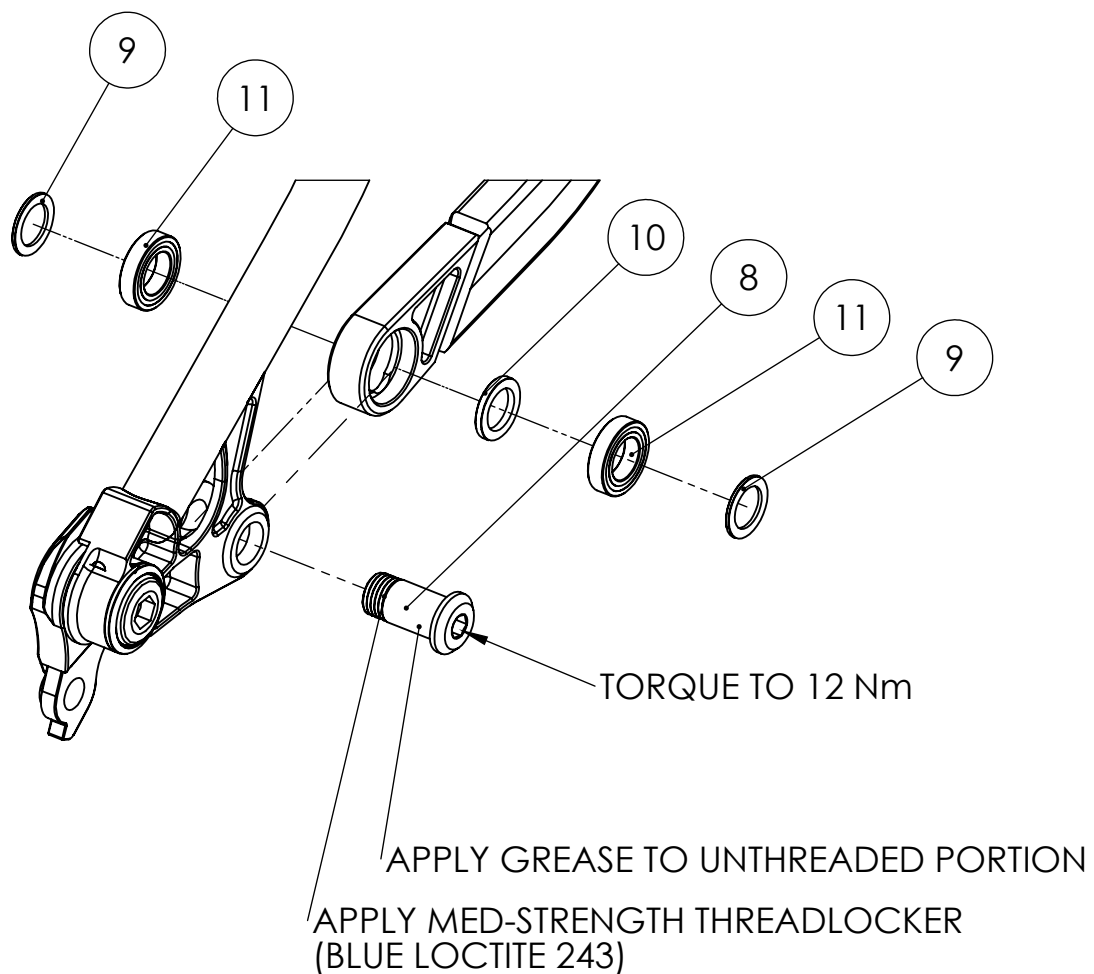
ROCKER ASSEMBLY	
Ref.	Description
12	6901 MAX BEARING
13	REAR LINK PIVOT BOLT
14	ROCKER PIVOT AXLE
15	ROCKER MAIN AXLE NUT
16	ALLOY 3MM SPACER
21	C CLIP FOR 6901 BEARING



NOTES - TORQUE AND THREADLOCKER SPECS APPLY TO BOTH SEATSTAY PIVOTS  
 - TO ACCESS SEATSTAY PIVOTS FOR ASSEMBLY/DISASSEMBLY, REMOVE SHOCK AND TILT ROCKER LINK IN DIRECTION OF SHOCK COMPRESSION



<b>SHOCK ASSEMBLY</b>	
Ref.	Description
4	LOWER SHOCK SECURING PIN SS
5	LOWER SHOCK SECURING SCREW SS
6	TRUNNION BOLT
7	SS TRUNNION SPACER
12	6901 MAX BEARING



NOTE - (10) MUST BE PLACED BETWEEN BEARINGS BEFORE PRESSING BEARINGS INTO CHAINSTAY

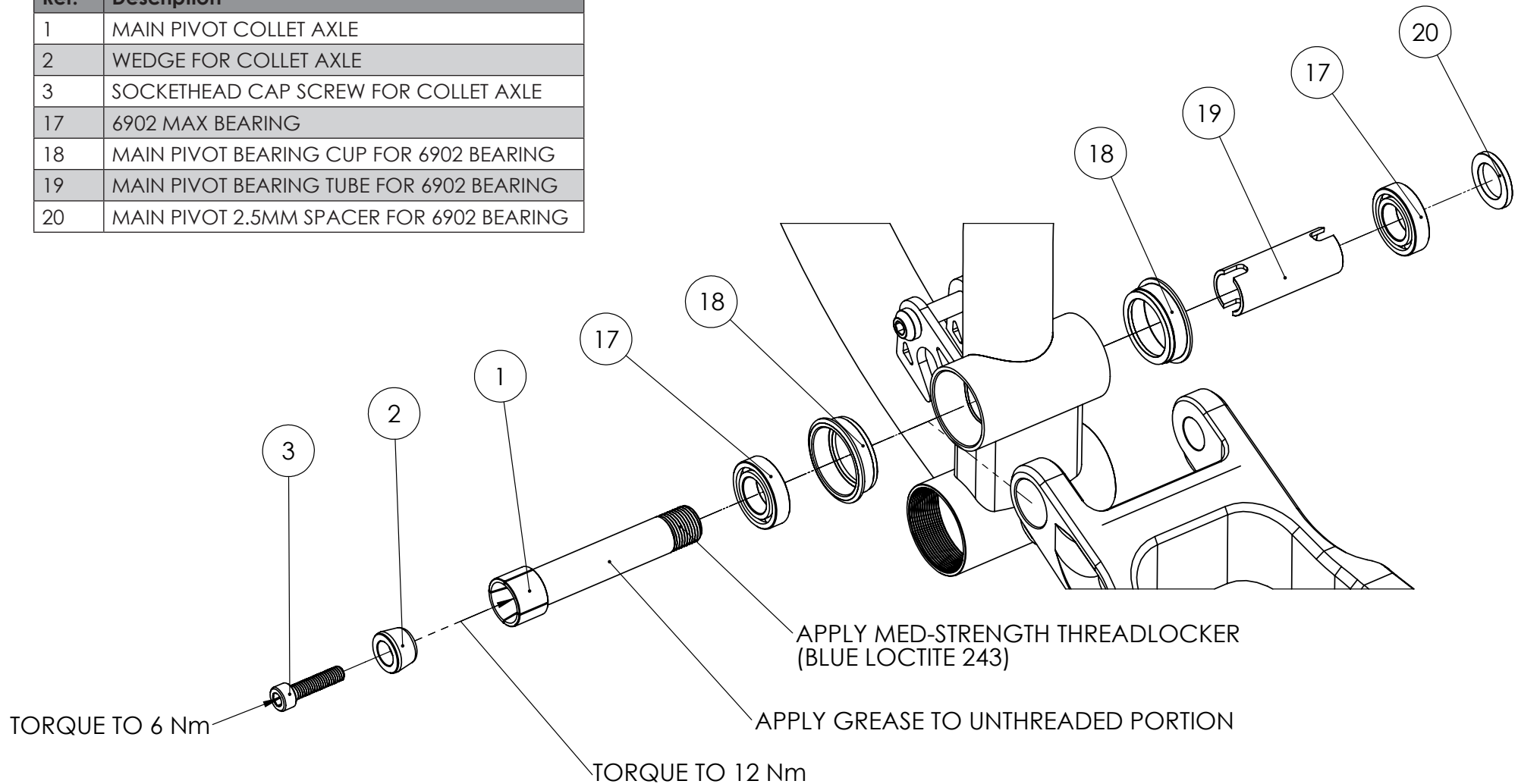
<b>HORST LINK ASSEMBLY</b>	
Ref.	Description
8	HORST LINK SCREW
9	1MM HORST SPACER (RING SHIM)
10	ALLOY 2MM HORST SPACER
11	6801 MAX BEARING





## MAIN PIVOT ASSEMBLY

Ref.	Description
1	MAIN PIVOT COLLET AXLE
2	WEDGE FOR COLLET AXLE
3	SOCKETHEAD CAP SCREW FOR COLLET AXLE
17	6902 MAX BEARING
18	MAIN PIVOT BEARING CUP FOR 6902 BEARING
19	MAIN PIVOT BEARING TUBE FOR 6902 BEARING
20	MAIN PIVOT 2.5MM SPACER FOR 6902 BEARING



- NOTES - BEARING CUPS (18) ARE PRESSED INTO FRAME AND SHOULD NOT REQUIRE REMOVAL UNLESS DAMAGED OR WORN
- (19) MUST BE PLACED BETWEEN BEARINGS BEFORE PRESSING BEARINGS INTO CUPS



Now get out and ride!

+1 604 905 6667  
sales@chromagbikes.com  
chromagbikes.com